

Lummi Nation Wind Energy Feasibility Assessment Project (DOE Grant Number DE-EE0002516)
Smokehouse Road Site Anemometer Tower Installation February 4, 2011
50 meter NRG Tubular Tower - National Renewable Energy Laboratory (NREL) Anemometer Loan Program



Smokehouse Anemometer Tower Upon Arrival Prior To Assembly



Unloading Of Anemometer Tower Parts

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Pre-installed Anchors



South-facing Anchor And Gin Pole Anchor

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Additional Mounding Around South-facing Anchors



South-facing Anchors After Mounding

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Laying Out Of Tower Sections



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Tower Base, Tower Sections, Equipment



Guide Cables – Four Attached To Each Ring, Six Rings



Holes Added to Lowest Tower Section For Attachment To Base

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Base Of Tower Attached to First Tower Section



Assembly Of Tower Sections

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Rings With Guide Cables Attached To Tower Section



All Tower Sections Connected – Laying Out Cables Towards Anchors

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Anemometers Before Installation



Wind Vane Before Installation

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Gin Pole Assembled And Attached To Tower Base



Gin Pole Attached To CAT Winch And Secured By Sideways Ropes (East and West)

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Guide Cables Attached To East Anchor And Tension Winches, Nylon Rope To Stabilize Gin Pole



Raised Gin Pole

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Marker Balls At Tip Of Tower And Two Installed Anemometers



Bat Detector Bracket At 45 m

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Measuring Height For Equipment Installation



Raising of Tower For The Installation Of Anemometers And Wind Vanes Pointing Towards The Ground

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Installing Equipment On Elevated Part Of The Tower, East Anchor And Winch In Foreground



Installed Anemometers, Crew Securing Data Cables And Copper Grounding Cable With Tape

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Elevated Top Of Tower During Installation



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Installed Wind Vane



Lowest Anemometers



Elevated Top Of Tower With Three Sets Of Anemometers And Wind Vanes.

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Hanging Cables Connect To The Pulley Of The Bat Detector Bracket.



Installation of Equipment On Lower Tower



Lower Bat Detector Bracket

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Temperature Sensor



Lifting Assembled Tower

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Lifting Assembled Tower



Lifting Assembled Tower – The Guide Cables Are Adjusted At Each Stage

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Upright Tower



Winches At East Anchor

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Installed Tower



Installed Tower

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Final Adjustments And Installation Of Data Logging And Communication Equipment